APR 3 1990

3M General Offices

3M Center St. Paul, Minnesota 55144-1000 612/733-1110

Duns No.: 00-617-3082

MATERIAL SAFETY DATA SHEET

DIVISION: ADHESIVES, COATINGS AND SEALERS

TRADE NAME:

3M 90 High Strength Adhesive (1PA)
3M I.D. NUMBER: CS-0406-6914-8 62-4441-4930-6

ISSUED: MARCH 9, 1990

SUPERSEDES: DECEMBER 30, 1989

DOCUMENT: 11-0881-0

1. INGREDIENT	C.A.S. NO.	PERCENT	VALUE UNIT	LIMITS TYPE AUTH
dimethyl ether (propellant) pentane acetone non-volatile components - New Jersey Trade Secret (T.S.) Registry No. 04499600-5548P	115-10-6 109-66-0 67-64-1 T.S.	50.0 - 60.0 10.0 - 20.0 10.0 - 20.0 1.0 - 10.0	1000 ppm 600 ppm 750 ppm NONE NONE	TWA CMRG TWA ACGIH TWA ACGIH NONE NONE
cyclohexane	110-82-7	1.0 - 10.0	300 ppm	TWA ACGIH

SOURCE OF EXPOSURE LIMIT DATA:

- ACGIH: American Conference of Governmental Industrial Hygienists CMRG: Chemical Manufacture Recommended Guidelines

- NONE: None Established

THIS PRODUCT CONTAINS THE FOLLOWING TOXIC CHEMICAL OR CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 AND 40 CFR PART 372:

acetone cyclohexane

2. PHYSICAL DATA

BOILING POINT:.... Compressed gas VAPOR PRESSURE: VAPOR DENSITY: Compressed gas N/D

EVAPORATION RATE:.... N/D SOLUBILITY IN WATER:SP. GRAVITY: Nil 0.70

PERCENT VOLATILE: 88.5% By Weight VOLATILE ORGANICS: 616 Grams/Liter N/A VISCOSITY: N/A - aerosol

APPEARANCE AND ODOR: Clear liquid in aerosol, solvent odor

3. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:. <-40F (Closed Cup/Propellant)

FLAMMABLE LIMITS - LEL: FLAMMABLE LIMITS - UEL: N/A Flammable Gas

AUTOIGNITION TEMPERATURE: ... N/D

EXTINGUISHING MEDIA:

CO2, foam, dry chemical SPECIAL FIRE FIGHTING PROCEDURES:

Fire fighters should be equipped with self-contained breathing apparatus when fighting fires involving this material.
UNUSUAL FIRE AND EXPLOSION HAZARDS:

Extremely Flammable. (Treat as flammable pressurized container). Overheated, closed container adjacent to fire could explode due to

Abbreviations: N/D - Not Determined N/A - Not Applicable

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3. FIRE AND EXPLOSION HAZARD DATA (continued)

internal pressure buildup.
NFPA-HAZARD-CODES: HEALTH 2 FIRE 4 REACTIVITY 1
UNUSUAL REACTION HAZARD: None

4. REACTIVITY DATA

STABILITY: Stable INCOMPATIBILITY - MATERIALS TO AVOID: N/D

CONDITIONS TO AVOID: Do not store at temperatures above 120F. Do not puncture or incinerate container.

HAZARDOUS POLYMERIZATION: Will Not Occur

HAZARDOUS DECOMPOSITION PRODUCTS:

CO, CO2 and smoke particles when subjected to excessive heat or flame.

5. ENVIRONMENTAL INFORMATION

SPILL RESPONSE:

If cans rupture, observe precautions from other sections. Extinguish all ignition sources and ventilate area. Use inorganic absorbent to absorb spill, place absorbed product and partially full cans in a U.S. Dept. of Transportation approved metal container and seal.

RECOMMENDED DISPOSAL:

Incinerate absorbed product and partially full cans in a hazardous waste facility. U.S. EPA HAZARDOUS WASTE NO.: DOOI (Ignitable). Dispose of empty cans in a sanitary landfill or incinerator in a commercial facility capable of handling aerosol cans. Consult applicable regulations or authorities before disposal.

ENVIRONMENTAL DATA:

Volatile Organic Compound (VOC):
Maximum VOC = 616 grams/liter.
Maximum VOC minus Water minus Exempt Solvents = 616 grams/liter.
VOC's were calculated according to Rule 443.1 of the South Coast
Air Quality Management District (SCAQMD).

SARA HAZARD CLASS:

FIRE HAZARD: Yes PRESSURE: Yes REACTIVITY: No ACUTE: Yes CHRONIC: Yes

6. SUGGESTED FIRST AID

EYE CONTACT:

Flush eyes with large amounts of water for at least 10 minutes. Call a physician.

SKIN CONTACT:

Thoroughly wash affected area with soap and water.

INHALATION:

Move person to uncontaminated air. Call a physician.

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6. SUGGESTED FIRST AID

(continued)

IF SWALLOWED:

Do not induce vomiting. Call a physician or poison control center.

OTHER FIRST AID: NONE

7. PRECAUTIONARY INFORMATION

FOR INDUSTRIAL OR PROFESSIONAL USE ONLY. Keep product and its vapors away from all sources of ignition. The vapors released by this product can easily be ignited and burn explosively. Use only in areas with sufficient ventilation to maintain vapor and mist concentrations below recommended exposure limits. Avoid prolonged breathing of vapor and mist. Local exhaust ventilation should be used if large quantities are sprayed in a short period of time. Avoid eye and skin contact; wear chemical goggles or safety glasses and impervious gloves when handling product. Use only as directed. Do not take internally. Intentional misuse by deliberately concentrating and inhaling or swallowing may be harmful or fatal.
not puncture or incinerate container. Do not store product at
temperatures above 120F. KEEP OUT OF THE REACH OF CHILDREN.

ADDITIONAL EXPOSURE LIMITS

	i EX	POSURE	LIMITS	
INGREDIENTS	VALUE	UNIT	TYPE	AUTH
pentane		mg/m3	TWA	ACGIH
pentane	750	ppm	STEL	ACGIH
pentan e		mg/m3	STEL	ACGIH
pentane	600	ppm	TWA	OSHA
pentane		mg/m3	TWA	OSHA
pentane	750	ppm	STEL	OSHA
pentane		mg/m3	STEL	OSHA
acetone	1780	mg/m3	TWA	ACGIH
acetone	1000	ppm	STEL	ACGIH
acetone	2375	mg/m3	STEL	ACGIH
acetone	750	ppm	TWA	OSHA
acetone		mg/m3	TWA	OSHA
acetone	1000	ppm	STEL	OSHA
acetone	2400	mg/m3	STEL	OSHA
cyclohexane	1050	mg/m3	TWA	ACGIH
cyclohexane	300	ppm	TWA	OSHA
cyclohexane	1050	mg/m3	TWA	OSHA

SOURCE OF EXPOSURE LIMIT DATA:

- ACGIH: American Conference of Governmental Industrial Hygienists

- OSHA: Occupational Safety and Health Administration

8. HEALTH HAZARD DATA

EYE CONTACT: Liquid and vapor may cause eye irritation.

SKIN CONTACT: Prolonged and repeated skin contact may defat skin

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8. HEALTH HAZARD DATA

(continued)

leading to irritation and dermatitis.

INHALATION: Vapor overexposure may cause respiratory system irritation and temporary nervous system impairment (light-headedness). Overexposure to acetone may cause heart, liver, kidney and blood damage. Overexposure to cyclohexane vapors may cause liver and kidney changes based on animal studies. Gross overexposure such as is caused by intentional inhalation of concentrated vapors in a confined vessel can result in serious damage, including asphyxiation and death. Symptoms of overexposure may include headache, dizziness, weakness, fatigue, and on extreme overexposure, unconsciousness.

INGESTION: Accidental ingestion is unlikely from an aerosol container. Intentional concentration and swallowing the liquid product may cause severe digestive system irritation, nausea and vomiting. Solvent aspiration into the lungs due to vomiting can cause lung damage, which can be fatal.

SECTION CHANGE DATES

HEADING

SECTION CHANGED SINCE DECEMBER 30, 1989 ISSUE

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The information on this Data Sheet represents our current data and best opinion as to the proper use in handling of this material under normal conditions. Any use of the material which is not in conformance with this Data Sheet or which involves using the material in combination with any other material or any other process is the responsibility of the user.